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Lessons from Experiences with Ex-ante Poverty Impact Assessments of Macroeconomic Adjustment Policies: The Case of the Philippines

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Abstract

The paper reviews some of the economic models available in the Philippines used for ex-ante analysis on the poverty effects of adjustment policies. There are macroeconometric models, CGE-poverty microsimulation models, household models, partial/single equations models used by various analysts in private and public institutions and in the government planning agencies to conduct policy simulation exercises to analyze the distributional and poverty effects of adjustment policies. While the results guide the policy discussions on the poverty effects and provide policy framework for the medium-term development plan of the country, the ultimate impact on poverty would largely depend upon the specific government poverty programs, the targeting mechanisms, and the institutional arrangement that facilitate the implementation of such programs. The discussion in the paper indicates that there are large gaps in the poverty programs of the government and in the institutional arrangements.

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Introduction

The Philippines has adopted short run stabilization policies and structural adjustment measures in order to improve its long term growth performance, which has not been too encouraging in the last three decades. While these adjustment policies are necessary and their effects on macroeconomic variables easily monitored, their impacts at the household levels, especially on income distribution and poverty, are not very clear and straightforward to understand. The effects would depend upon the size of the adjustments, the structure of the economy in terms of production, consumption, markets and prices, and the structure of household endowments. These effects are difficult to ascertain because there are positive as well as negative effects, and one cannot know for sure the magnitude of each of these effects across production sectors and households. Understanding these effects would require the use of economic models that are estimated and calibrated to Philippine data for policy simulations. Fortunately, a number of such tools are available. The main objective of the paper is to review some of these analytical works. The discussion focuses on is the general structure of these models, the policy simulations conducted using these models, and key results and implications on income distribution and poverty issues. To put the discussion in perspective, the paper also discusses the historical performance of the economy in the last three decades, the extent of the poverty and income distribution problems, and reviews some of the key poverty programs of the government.

2. The Philippine Economy

2.1. Growth Performance

Table 1 presents few broad indicators of macroeconomic performance of the Philippines in the last three decades. Two of the indicators, real GDP growth and inflation rate, are shown in Figure 1. One can observe that the economy has not been able to sustain growth over the past 30 years. The relatively good performance in the 1970s was followed by a very deep recession in the mid-1980s when the economy contracted by a total of -14.3 percent in two successive years in 1984 and 1985. Inflation peaked at 47.1 percent in 1984. This was largely due to the political crisis that resulted from the assassination of a key political figure. Political uncertainty and weak economic fundamentals characterized by chronic budget deficit, persistent external imbalance, and alarmingly high proportion of short-term debt to the total debt during these years triggered capital flight that resulted in an economic crunch that brought the level of international reserves down to their lowest and critical level, which could cover only 1.4 months of merchandise imports. The nominal peso/US dollar exchange rate devalued by 30 percent, 50 percent, and 12 percent in 1983, 1984, and 1985, respectively.

The contraction in the economy during these years resulted in a large drop in the real per capita GDP (Figure 2). Unemployment rate reached record levels also (Figure 3). It is important to note that while there were improvements in employment in the ensuing years, one may observe that the negative effects of the deep recession in the mid-1980s on per capita GDP has not been recovered until very recently, 2003.

A change in administration took place in the early 1986. Economic growth recovered. Real GDP growth peaked at 6.8 percent in 1988. However, growth was

short-lived because of the following factors: (a) the economy remained fragile as shown by the chronic macroeconomic imbalances and the rapidly rising debt; (b) the political tug-of-war persisted that resulted in a series of military coup attempts; (c) the crippling energy crisis erupted that led to massive blackout all over the country; (d) the series of natural calamities that occurred within a span of three years and that inflicted severe damage to the productive capacity of the economy; and (e) the Gulf crisis that increased drastically the oil import bill of the economy. Thus growth started to slip in 1989 and contracted in 1990. Prices were increasing almost 20 percent. Real per capita GDP as well as unemployment followed the same general pattern. The nominal peso/UD dollar exchange rate also depreciated. The contraction though was not as deep as in the mid-1980s.

Another administration took office in 1992. Economic growth started to resume beginning 1993, reaching a peak of 5.8 percent in 1996. While external imbalances persisted during these years, the government budget started to generate surpluses. Another positive development in this period was the drop in the level of public debt, both from local and foreign sources. Also, inflation was maintained at single digit level. It was also during this period when the economy experienced massive foreign capital inflow that resulted in the appreciation of the exchange rate.

The year 1998 was again a turning point with another economic contraction. A very popular administration took office. The devastating effect of El Nino crippled the agricultural sector with the highest contraction in 30 years. The after-effect of the 1997 Asian financial crisis took its toll on growth in 1998 by way of high interest rate, depreciated exchange rate, and reduced capital inflows into the whole region in general. While there was an improvement in the external imbalances during this period because of rapid growth in exports of semi-conductor, government imbalances and the level of indebtedness started to deteriorate rapidly.

Interesting developments seem to transpire though in the last four years. The administration that took office in 1998 was short-lived because of a series of political scandal. The incumbent vice-president at that time took over the administration in early 2001. However, the economy was a bit resilient during these years because despite the political turmoil during these years it did not contract, but only slowed down. In 2001 it managed to register a GDP growth of 3 percent. In the ensuing years, it maintained a growth of above 4 percent, while inflation was low at 3 percent. While the external balance remained positive because of the continued strong export growth of semi-conductor, the government imbalance deteriorated further and the level of indebtedness increased rapidly. One disturbing development that should be noted is that while growth was positive during these years, unemployment remained high. This is quite puzzling because in the past, the pattern of unemployment followed closely with growth. The persistent high unemployment rate could have major implication on poverty.

It is evident from the performance in the last three decades that growth could not be sustained over an extended period. A pattern of boom-bust growth within a cycle of 6 to 7 years seems to appear in a regular manner. To be sure, political instability in a fragile economy characterized by weak fundamentals contributes significantly to this growth cycle. Thus, both political and economic reforms are

needed. The present paper focuses on the need for economic reforms through macroeconomic adjustments and the implications on poverty.

2.2 Macroeconomic Adjustment Policies

Adjustment policies are composed of a set of instruments that are designed to address serious imbalances faced by the economy. Economic imbalances appear because aggregate demand does not match with aggregate supply. The effects are manifested in persistent external deficit, chronic and unsustainable government budget imbalance, rapidly rising indebtedness, high interest rate, and high inflation. These imbalances are addressed by both stabilization and structural adjustment policies.

Stabilization policies are a set of consistent instruments designed to reduce aggregate demand in the short run, while taking structural parameters of the economy as given. In general, stabilization policies tend to be deflationary. On the other hand, structural adjustments policies are designed to address the deficiencies in the supply side of the economy so it can accelerate and sustain growth over the medium to long term. However, since stabilization policies and structural policies are designed to address two different sides of the economy, their effects may not necessarily be consistent with one another. For example, a drastic cut in government infrastructure spending may quickly reduce aggregated demand and therefore stabilize the economy and reduce the pressure on prices, but it could undermine the effort to increase the productive capacity of the economy over the long term.

2.2.a Stabilization Policies

A series of stabilization measures were carried out under various programs supported by the International Monetary Fund (IMF) to address the balance of payments deficit, the government budget deficit, and high inflation. One of the major measures to address inflation was the tight monetary policy implemented through a cap on the growth of money supply. The growth of money supply was regularly monitored against the set cap by both the government and the IMF.

Another set of key policy measures adopted addressed the issue of government budget deficit through expenditure cuts and adoption of new revenue-raising measures. In particular, there were selective cuts on government expenditure, elimination of subsidies to the Oil Price Stabilization Fund (OPSF), imposition of higher user charges of government corporations, and temporary implementation of a 9 percent import levy.

2.2.b Economic Reforms and Structural Adjustments[1]

Economic reforms and structural adjustments in the country were carried out under various World Bank structural adjustment loans (SAL). Some of these major reforms are described below.

[1] See Lamberte, et al (1992)

The generally poor performance of the economy over an extended period left the government with no choice but to implement major reforms. Major reforms were implemented starting 1986. Broadly, the reforms were aimed at: (a) restructuring the economy; (b) improving the efficiency and competitiveness; and (c) building solid foundation for a sustained growth. Structural reforms were implemented in the following areas: fiscal, financial, foreign exchange market, capital markets, foreign investment, and competitive environment. The government also took an aggressive stance of liberalizing the foreign trade sector.

One of the major changes in the fiscal sector is the tax reform program. Among the objectives of the program is to improve the elasticity of the tax system and the tax administration and compliance through tax simplification, and to promote equity and growth through reduction of highly distortive taxes. Furthermore, the government adopted the Value Added Tax (VAT) system in the second half of the 1980s that replaced several sales taxes. The government also broadened the coverage of the VAT system to include agricultural crops and the service sector.

The government removed the controls on interest rates, rationalized the credit programs of the government so as not to compete with the private financial institutions, privatized several government-owned and controlled banks, and liberalized bank entry, particularly the entry and scope of foreign banks. The government also initiated the rehabilitation of the rural banking system, stopped the operation of weak private commercial banks through either closure or merger with other stronger banks. Moreover, the Central Bank abandoned its selective credit control and imposed uniform rediscounting for all activities.

The old Central Bank was rehabilitated through the Central Banking Act into what is now called the Bangko Sentral ng Pilipinas (BSP), whose sole mandate is to maintain stability in the economy. BSP was freed from the burden of the huge stock of non-performing assets that almost crippled the old Central Bank.

Furthermore, through the Foreign Exchange Act a substantial number of controls in the foreign exchange market were removed. For instance, exporters are no longer required to surrender their export proceeds and to seek prior BSP approval for their foreign exchange-related transactions. Controls on capital repatriation, dividend, and interest remittance were also dismantled. Also, overseas contract workers (OCWs) are no longer required to remit to the Philippines a certain portion of their income. However, there are still existing controls with respect to foreign borrowing by both the private and public sectors, especially those that are guaranteed by the national government or government financial institutions.

Four major policy reforms were introduced that have a direct bearing on the development of the capital market. First, the double taxation of dividend income was eliminated through the abolition of the tax on intercorporate dividends and the gradual phase-out of the tax on shareholder's dividend income. Second, the Security and Exchange Commission formally issued the "Rules and Regulations Governing Investment Companies" in 1989, signaling the revival of the mutual funds. Third, as part of the foreign exchange deregulation program, rules and regulations covering foreign investments in BSP-approved securities were relaxed. Fourth, the two stock exchanges in the Philippines were unified; thereby eliminating inefficiencies such as

price arbitrage in a situation where two markets are allowed to list the same issue/company.

The Foreign Investment Act of 1991 liberalized entry of foreign investors within the provisions of the Constitution of the Philippines. As a general rule, there are no restrictions on the extent of ownership of export enterprises, defined as those exporting 60 percent of their output. As for enterprises oriented to the domestic market, foreigners are allowed to invest as much as 100 percent, unless the participation is prohibited or limited to a smaller percentage by existing laws and/or provisions of the Foreign Investment Act.

To promote competition in the domestic economy, the government removed entry barriers in crucial industries such as telecommunications, transportation (land, sea, and air), banking and cement. At the same time, the government pursued a privatization program. In 1993 alone the government sold to the public 19 government-owned and controlled corporations, including major ones such as Petron, Philippine Shipyard Engineering Corporation, and Oriental Petroleum and Minerals Corporation. The Philippine National Bank, the Philippine Airlines and the Metropolitan Waterworks and Sewerage were all privatized. The National Power Corporation will soon be sold to the public.

One of the major focused areas of structural adjustments was in the foreign trade sector. Adjustments were implemented in various phases. The first phase of the trade reform program (TRP) started in the early 1980s with three major components: (a) the 1981-85 tariff reduction; (b) the import liberalization program (ILP); and (c) the complimentary realignment of the indirect taxes. There was a narrowing of the structure of tariff rates from the 100 – 0 percent range to 50 – 10 percent. During the period 1983–1985 sales taxes on imports and locally produced goods were equalized. The mark–up applied on the value of imports (for sales tax valuation) was also reduced and eventually eliminated.

The implementation of ILP however was suspended in the mid–1980s because of the balance of payments crisis. In fact, some of the items that were deregulated earlier were re–regulated during the period. When the Aquino government took over the administration in 1986 the TRP of the early 1980s was resumed, resulting in the reduction of the number of regulated items from 1,802 in 1985 to 609 in 1988. Export taxes on all products except logs were also abolished.

In 1991 the government launched TRP–II through the issuance of the Executive Order (EO) 470. TRP–II was an extension of the previous program that realigned tariff rates over a five–year period. The realignment involved the narrowing of the tariff rates through a series of reduction of the number of commodity lines with high tariffs, and an increase in the commodity lines with low tariffs. In particular, the program was aimed at clustering the commodities with tariffs within the 10 – 30 range by 1995. Despite the programmed narrowing of the tariff rates, about 10 percent of the total number of commodity lines were still subjected to 0 – 5 percent tariff and 50 percent tariff rates by the end of the program in 1995.

In 1992, EO 8 was implemented to convert quantitative restrictions (QRs) into their tariff equivalent in various stages. In the first stage, QRs of 153 commodities

were converted into tariff equivalent rates. In a number of cases, tariff rates were raised over 100 percent, especially during the initial years of the conversion. However, a built–in program for reducing tariff rates over a five–year period was also put into effect. De-regulation continued on the next 286 items in the succeeding stage. At the end of 1992 only 164 commodities were covered under the QRs.

There were some policy reversals along the way though. The implementation of Memorandum Order (MO) 95 in 1993 reversed the de-regulation process. In fact, QRs were re-imposed on 93 items, bringing up the number of regulated items under the QR to 257. This re-regulation came largely as a result of the Magna Carta for Small Farmers in 1991.

In 1994, the government started implementing TRP–III through a series of EOs. Tariff rates on capital equipment and machinery were reduced under EO 8 in January 1, 1994. Tariff rates on textiles, garments, and chemical inputs were reduced under EO 204 in September 30, 1994. Tariff rates were reduced on 4,142 harmonized lines in the manufacturing sector under EO 264 in July 22, 1995. Tariff rates were reduced on "non-sensitive" components of the agricultural sector under EO 288 in January 1, 1996. In all of these programs, the restructuring of tariff rates refers to the reduction in both the number of tariff tiers and the maximum tariff rates. In particular, the overall program was aimed at establishing a four-tier tariff schedule: three percent for raw materials and capital equipment that are not available locally; 10 percent for raw materials and capital equipment that are available from local sources; 20 percent for intermediate goods; and 30 percent for finished goods.

Table 2 presents the average nominal and implicit tariff rates of major sectors. Implicit tariff rates are computed as the ratio between border prices and local prices. Thus, they capture both the nominal tariffs and other non-tariff protection.

In terms of the average nominal tariff, the rates dropped from 16.4 percent in 1991 to 3.6 percent in 2003. The drop is significantly larger in manufacturing than in agriculture. Similarly, in terms of implicit tariffs, the rates also dropped in both sectors. In particular, the overall average implicit tariff rate declined from 30.6 percent in 1992 to 16.8 percent in 2000. There is a larger drop in manufacturing than in agriculture as well. However, there is still a large gap between nominal and implicit tariff, which implies there are still other non-tariff trade protections present in the system.

3. Poverty and Distribution

Table 3 presents the overall poverty situation in the country from 1985 to 2000. Three Foster-Greer-Thorbecke (FGT) poverty measures are shown: the simple headcount ratio, the poverty gap index, and the poverty severity index.[2] Furthermore,

[2]The headcount ratio is the common index of poverty, which measures the proportion of the population whose income (or consumption) falls below the poverty threshold. The poverty gap, however, measures the depth of poverty in the sense that it indicates how far below on average the poor are from the poverty threshold. The poverty severity index is sensitive to the distribution among the poor as more weight is given to the poorest below the poverty threshold. This is because this index corresponds to the squared average distance of income of the poor from the poverty line(Ravallion, 1992).

various groupings are presented to highlight the differences in the extent of poverty among the different household groups. Estimates for the entire Philippines are presented, as well as for the National Capital Region (NCR), urban areas excluding the NCR, and rural areas. In each major location, households are grouped into female and male. In each gender group, households are further divided into household heads with low education, as well as with high education. Low education refers to zero education up to third year school, while high education is high school graduate and up.

The overall headcount ratio dropped from 49.2 percent in 1985 to 36.9 percent in 1997. It however increased to 39.5 percent in 2000 mainly because of the effects of El Nino and the Asian financial crisis as discussed earlier. Similar pattern is observed from the other indices. While generally all indices move in the same direction for the NCR, urban, and rural, a disturbing pattern seems to emerge: the drop in poverty is highest in the NCR where the poverty incidence is lowest with single digit poverty incidence in 1997, and lowest in rural areas where poverty is widespread with above 50 percent poverty incidence. From 1985-97, while the headcount index dropped by -69 percent in the NCR, it declined by –38 percent in other urban areas, and only by –10 percent in rural areas (Column O). However, from 1997 to 2000 where poverty increased, the increase in poverty was higher in the NCR than in both urban excluding NCR and rural areas (Column L)

Male-headed households with low education have the highest poverty incidence in all three major locations. But those in the rural areas in the household category have much higher incidence than in urban and the NCR. For example, in 1997, male-headed households in rural areas with low education have 58.5 percent headcount index, while 41.3 percent for their counterparts in urban areas and 16.8 percent in the NCR. On the other hand, for the female groups, those with low education have the next highest poverty incidence.

While all household groups in the NCR and urban areas have experienced poverty improvement over the period 1985-97, two of the rural household groups showed deterioration. These are female-headed and male-headed households both with high education (Column O). For female-headed households the increase is observed in the period 1994-91 (Column J), while for male-headed households in period 1991-88 (Column I).

Table 4 shows the distribution of poor households. One can observe that about 70 percent of the poor are in rural areas. More than 20 percent are in urban areas, while the remaining 10 percent in the NCR. Thus, in the Philippines poverty is a rural phenomenon. Broken down further across major locations and across household types, about 60 percent of the poor are male-headed households with low education in rural areas. Male-headed households in urban areas follow next. Generally, there are significantly fewer poor female-headed households in all major locations.

Thus, the general pattern that one can observe from the poverty indices over the period when economic adjustments and reforms were intensively implemented is that those households with higher level of educational attainment are able to benefit more than those with lower education.

Table 5 presents indicators of income inequality in the Philippines. One can observe that income inequality is one of the major problems in the country. Despite the reforms, income inequality worsened. The Gini coefficient increased from 0.4525 in 1985 to 0.5068 in 1997 and 0.5054 in 2000. The top 20 percent of the population share more than 50 percent of the total household income pie, while the bottom 20 percent only share 4 to 5 percent. The share of the latter declined from 5.2 percent in 1985 to 4.4 percent in 2000.

Reyes (2002) decomposed the change in the poverty incidence over the period into economic growth effects, redistribution component, and other residual effects, and found that the overall improvement in poverty could have been higher had not been for the negative effects of the worsening of inequality. In particular, in her estimates of poverty incidence, of the –9.4 percent drop in the incidence over the period 2000-1985, –16.5 percentage points are due to economic growth effect, while the inequality of income distribution contributed to an increase in poverty incidence of 4.7 percentage points (Table 6). The rest are accounted by other factors. Thus, economic growth is the major factor behind the reduction in poverty, while the worsening of income inequality presents a significant drag to the effort of solving poverty problems in the country.

4. Framework of Analysis

While the immediate objective of economic adjustment policies is to change the values of macroeconomic aggregates to make growth sustainable in the long run, the ultimate effect is on the households. Of particular interest is the effect of adjustments on the poor or the vulnerable groups. The challenge therefore is to identify the link through various channels between adjustment policies at the macro level and household effects at the micro level. A policy research funded by the International Development Research Center (IDRC) of Canada on the micro impacts of macroeconomic policies (MIMAP) in the Philippines proposed a framework of analysis of how to link up macro adjustment policies with household outcomes. There are four household outcomes that are considered: the poverty effects, income distribution effects, consumer welfare effects, and specific household outcomes such as nutrition effects, health effects, and educational effects. These effects are worked out in three major channels: labor market, goods and service market, and provision of public/social goods, and in three transmission mechanisms: factor prices, household income, and consumer prices. Adjustment policies affect relative factor as well as output prices, which in turn affects consumer prices. These changes will trigger resource allocation effects. Thus, some sectors will expand, while others will contract. This will affect the demand for factors of production. Together with the effects on factor prices, all these will affect household income. The distribution of income effects will depend upon the resource endowments of individual households.

5. Simulation Models and Keys Results

Two types of economy-wide models are used in the analysis: macroeconometric simulation model estimated using Philippine data and CGE models calibrated to Philippine social accounting matrix (SAM). Each of these models specifies the sources of household income and prices, both factor and output prices. However, while the macroeconometric models have limited number of production

sectors, the CGE models have very detailed production sectors, the largest of which is a 50-sector model.

Distributional Analysis of Adjustment Policies Using Macroeconometric Model. A number of macroeconometric models are available in the country at present used by various analysts to conduct policy analysis and to generate macroeconomic forecasts. However, there is only one such models used in the MIMAP-funded projects on micro impacts. The model is the PIDS-NEDA Annual Macroeconometric model[3]. Originally, the model was designed to provide a coordinated framework for the formulation of the medium-term development plan of the Philippines. In fact, in its early stages, the model was heavily used during the series of negotiations involving the country's external debt. Furthermore, the model was extensively used to analyze the effects of stabilization policies on the Philippines.

In both the agricultural and service sectors of the model, output is assumed fixed. Prices vary to equate demand with available supply. On the other hand, in industry, because of its oligopolistic structure, mark-up pricing is assumed. Thus, industry output is determined by the level of demand.

For purposes of MIMAP analysis, the model was extended to capture the income distribution effects of various macroeconomic adjustment policies (Yap, 1996). It incorporated an income distribution bloc where sources of household income were specified using the factor income shares from the Family Income and Expenditure Survey (FIES). The analysis is recursive. In particular, the macro model introduces various policy shocks and calculates the effects on the value added of the major production sectors. The sectoral value added is decomposed into broad categories of factor incomes using the SAM, namely, compensation, mixed income, operating surplus and depreciation. These factor incomes are distributed to various household groups based on the structure of the sources of their income derived from the FIES. Households are grouped in decile. The analysis attempted to study the distributional effects of the following shocks: the 1991-93 cut in capital expenditure; and the 1992-93 depreciation of the currency. The effects on household income and on distribution are presented in Table 7.

The early 1990s saw increasing levels of government deficit. However, the non passage of various proposed tax measures, together with lower tax revenues because of the recession and the some delay in the sale of public assets, the government had to cut back on capital expenditure in order to prevent the further deterioration of the deficit. The baseline of the analysis employed the actual public expenditure data, which reflected the cut on capital expenditure. On the other hand, the counterfactual experiment involved an increase in the capital expenditure-GDP ratio by 0.5 percent, which is financed by domestic borrowings. Thus, one should note that because of the way the counterfactual exercise was conducted, the results of the exercise would have to be considered in the reverse direction.

At the macro level, the increase in public investment increases the productive capacity of the economy, and thereby reduces the inflationary pressure. Output of

[3]See Yap (2003) for a detailed discussed of the model. PIDS is Philippine Institute for Development Studies, while NEDA is National Economic and Development Authority.

major production sectors therefore increases. The model does not capture any crowding out effects of the increase in public spending on private investment because the increase in interest rate a result of higher domestic borrowing is more than offset by the reduction in inflation.

In terms of household income effects, all household groups show improvement in income. However, one can observe that across decile groups households in the higher decile benefit the most in terms of income increases. Thus, income inequality deteriorates as shown by a high Gini coefficient.

Thus, if considered in the reverse manner, the results would imply that a reduction in capital expenditure leads to lower household incomes. However, the reduction is higher for households in the upper decile. This will lead to a lower Gini coefficient, which in turn will imply favorable distribution effects.

The peso-US dollar exchange rate appreciated in the latter part of the 1990. However, the government did not intervene during this period to stabilize the currency. In the counterfactual exercise, the currency was depreciated to P28-$1 in 1992 and 1993. Again, the results would have to be considered in the reverse direction.

At the macro level, the depreciation negatively affects the economy's capacity to import the required raw materials, intermediate inputs and capital goods. Exports improve. Investment decreases. The decline is larger than the increase in exports. Industry, which is heavily dependent on imported inputs, drops. Agriculture, however, expands, as this sector is not too dependent on imported raw materials. Prices rise as a result of a depreciated currency.

Household income contracts, but the decline is relatively larger for household in the upper decile. The Gini coefficient therefore declines. Thus, in the reverse manner, which is an appreciation of the currency, output expands. This will lead to higher household income. However, the increase is larger for those in the upper decile. Thus, there will be deterioration in distribution, as indicated by a higher Gini coefficient.

Poverty Forecast using Macroeconometric Model. In a related exercise using the same framework above and an updated macroeconometric model, the National Economic and Development Authority (NEDA), the planning commission of the Philippines, recently generated poverty forecast for the next seven years starting 2004, given the growth scenario of the economy in the Medium-Term Philippine Development Plan. In particular, a planning exercise involved the use of the macroeconometric model to generate forecasts for the aggregate supply and demand for goods and services, the overall price and employment levels, the aggregate balance of trade in goods and services, as well as international financial flows with the rest of the world. These macroeconomic forecasts determine the sectoral demand and supply, factor quantities employed, and factor returns, and sectoral value added. The sectoral value added is decomposed into broad categories of factor incomes using the SAM, namely, compensation, mixed income, operating surplus and depreciation. These factor incomes are distributed to various household groups based on the

structure of the sources of their income derived from the FIES. Households are grouped in decile.

Using the macroeconometric model, NEDA generated forecasts for the period 2004-2010 of key macroeconomic variables (Table 8). The analysis also presented unemployment effects of various growth scenarios. The implications of this growth scenario on poverty are analyzed through the use of the income distribution module of the model. Forecast for the poverty incidence over the period are generated using the projected economic growth scenario and the following assumptions: (a) higher government revenue/tax effort; (b) sustained performance of the service sector; (c) higher growth of exports of services; (d) implementation of important policies and programs supportive of growth; (e) improved and continuing business confidence; (f) increase in agriculture productivity. In particular, poverty incidence is projected to decline from 34 percent in 2000 to 26 percent in 2010.

Unemployment and Household Welfare Analysis of Tariff Reform Using CGE. Using a standard CGE model with 12 representative households and a slightly modified wage determination module to capture certain unemployment issues, Cororaton (2003) calibrated the model to the 1994 Philippine SAM to analyze the effects of tariff reform from 1994 to 2000 on unemployment, household income and welfare. The wage determination is based on the specification of Blanchflower and Oswald (1995) and Card (1995), which relates wages with unemployment in a wage-curve equation. The wage-curve elasticity used was –0.1, which was the original econometrical estimate of Blanchflower and Oswald (1995). In the CGE model where this is adopted four types of labor were considered: skilled agriculture labor, unskilled agriculture labor, skilled production labor and unskilled production labor.

Results of the simulations indicated that tariff reduction results in a drop in the domestic price of imports, domestic price of locally produced goods, and consumer prices. The decline in import prices results in higher imports, while the drop in local prices effectively increases export competitiveness through the real depreciation of the currency, which in turn translates into higher exports. Although higher imports put pressure on local production, the export pull effect as a result of improved competitiveness offsets the negative effect on output. Thus, overall output improves. Also, the supply of goods available in the market improves.

The overall increase in output translates to higher household income. Together with the drop in consumer prices, household welfare improves. However, given the significant drop in the overall tariff rates (67 percent drop) the welfare effect is relatively small: 2.4 percent of the total value added or 2.7 percent of the total household income.

The effects at the sectoral level vary depending upon the export share and the export intensity ratio. Export intensity refers to the ratio between sectoral exports and output. The non-food manufacturing sector dominates the export sector. Thus it benefits from both the effects of output reallocation and labor movement. Furthermore, factor substitution effects favor skilled production workers in non-food manufacturing. However, the agricultural sector contracts. Agricultural wages decline as a well.

The introduction of unemployment through the use of wage curve equations into the system minimizes the fluctuation in wages across labor types for a given policy shock. It does not alter the welfare-improving result of a tariff reduction.

In another study, using a CGE model to examine the effects of tariff reforms, Clarete (1989) found that these reforms yield positive real income gains to the economy through a movement of resources out of agriculture towards non-agriculture. Moreover, in a separate CGE simulation exercise, Clarete (1991a; and Clarete 1991b) examined two major laws on tariff reduction in the early 1990s and found that these reforms improved the efficiency of the economy. However, this improvement can be sustained in the long if the government implements a right exchange rate policy to correct the increase in imports, otherwise the gains can be short-lived as the growing trade deficit put a lot of pressure on the balance of payments.

Trade Reforms and Poverty: a CGE Microsimulation Analysis. Given the economy-wide nature of trade reform, it is usually analyzed in the context of a (CGE) model that is calibrated to national accounting data. In contrast, given their nature, poverty issues are generally examined using individual or household data. The paper of Cororaton and Cockburn (2004) put these two approaches together in an integrated CGE-microsimulation model to examine the poverty effects of trade reforms in the Philippines. In particular, a standard CGE model was calibrated to 1994 Philippine data, and integrated with the 24,979 households of the 1994 Family Income and Expenditure Survey (FIES).

The simulation exercise involved tariff reduction with compensatory direct income tax. The results indicate that the tariff cuts implemented between 1994 and 2000 were generally poverty-reducing, primarily through the substantial reduction in consumer prices they engendered (Table 9). However, the reduction is much greater in the National Capital Region (NCR), where poverty incidence is already lowest, than in other areas, especially rural, where poverty incidence is highest. Tariff cuts lower the cost of local production and bring about real exchange rate depreciation. Since the non-food manufacturing sector dominates exports in terms of export share and export intensity, the general equilibrium effects of tariff reduction is an expansion of this sector and a contraction in the agricultural sector. This, in turn, leads to an increase in the relative returns to factors, such as capital, used intensively in the non-food manufacturing sector and a fall in returns to unskilled labor. As rural households depend more on unskilled labor income, income inequality worsens as a result (Table 10).

Rice Reforms and Poverty: A CGE Analysis. The Philippines is one of the three countries granted exemption in 1995 from the removal of quantitative restriction (QR) on rice under Annex 5 of the World Trade Organization (WTO) agreement. Japan and South Korea are the other two countries. However, the exemption will expire on December 31, 2004. Cororaton (2004) employed an agriculture-focused CGE to simulate the effects of the removal of the QR and the reduction of tariff on rice imports on consumer prices and household income, and then applied these set of results recursively to a set of individual household data in the Family Income and Expenditure Survey (FIES) to compute the poverty and income distribution effects. Policy experiments indicate that while market reforms in rice lead to a reduction in the overall headcount poverty index, both the poverty gap and the squared poverty

gap indices increase (Table 11). The Gini coefficient increases as well. In general, the results imply that the poorest of the poor are adversely affected. In particular, while market reforms in rice bring about a reduction in consumer prices that is favorable to all, imports of rice surge and generate displacement effects on poor households that rely heavily on agriculture for factor incomes, particularly on palay (unhusked rice) production and other related activities. Palay production and its output price decline. This translates to lower demand for factor inputs in the sector, lower factor prices in agriculture, and lower factor incomes for these households. Thus, poverty in these groups, as well as the general income inequality, deteriorates. However, results of further experiments involving various poverty-offsetting measures indicate that an increase in direct government transfers to these household groups can provide a better safety net.

Thus, while market reform is generally necessary, it has to be carried out carefully, especially if implemented in a critical commodity such as rice. Although market reforms in rice can potentially have favorable effects on consumer prices in general, some household groups may be adversely affected by the expected surge in rice imports. Policy measures may have to be designed to counter these effects.

Rice is the staple food of about 80 percent of Filipinos, and therefore a major item in the consumption basket of consumers. It is the single most important agricultural crop in the Philippines, and therefore a major source of income of millions of Filipino farmers. Because of its political significance, the government is heavily involved both in the supply and distribution of rice to assure consumers sufficient and stable supply of rice at low prices and to maintain a reasonable return to rice farmers with adequate price incentives. One major policy instrument of the government at present is the control on imported rice through QR and import tariff.

Philippine-Japan Bilateral Agreements. The Philippine government is currently under negotiation with the Japanese government on the possible bilateral agreements on trade and investment. Cororaton (2004) conducted a policy simulation exercise using a CGE-poverty microsimulation model of the Philippine economy to analyze the possible impact on distribution and poverty. The analysis focused on the total reduction of tariff rates on food and non-food manufactured imports from Japan and a 5 percent increase in the price of exports of Philippine food and non-food manufactured goods to Japan. Thus, the analysis assumes that the possible agreements can be considered as an extension of the tariff reduction program of the Philippines.

The results indicate that the complete reduction in tariffs on imports of selected items from Japan and the increase in export prices of selected Philippine products to the Japanese market will reduce Philippine domestic prices, which in turn increases its export competitiveness through the depreciation of the real exchange rate. Exports increase, especially those sectors with high export intensities and substantial export share, which are largely in the non-food manufacturing sector. This triggers reallocation effects that contracts agriculture and expands industry. Factors employed in agriculture receive lower income, while those used in industry enjoy higher factor income. Since rural households rely heavily on factors used in agriculture, this effect worsens the income distribution problem.

However, the overall household income improves because the total payments to factors employed in non-agriculture sector more than offset the decline in the

payments to factors used in agriculture. This, together with the relatively larger drop in consumer prices, has favorable effects on poverty in terms of incidence, gap, and severity. However, the drop in poverty is largest in the NCR and smallest in rural areas.

MIMAP Household Models. In the effort to bring down the analysis from macroeconomic analysis of adjustments to household outcomes, Orbeta and Alba (1999) estimated econometrically the health care choice of a person who complained about his/her health. The person is open to options: home care or formal outpatient care, which includes hospital outpatient clinic, independent private clinics, and public or charity clinics. A discrete choice model of outpatient care was estimated using data drawn form a household survey covering 4 regions in the Philippines and 7 provinces. The survey covered 14,200 individuals in 2,798 households. Both simple and nested logit model specifications were estimated.

The results indicate that prices or user fees and income are important determinants of health care choice. The price elasticities are small in magnitude compared with the estimates in the literature using data from other countries. However, across households, there is a clear tendency for larger price elasticities for lower income households compared with higher income groups. This set of results would imply that while increases in price or user fee will not drastically affect the average demand for formal case, a uniform application for any price or user increase would hurt the poor more than the rich. Therefore, in cases wherein a uniform price increase in health care fees arises, this set of results would indicate that it might be justified to protect the poor households from the effects of such price increase.

In a separate work Orbeta and Alba (1998) estimated a food demand system using the Almost Ideal Demand System (AIDS) specification and household data of the 1991 FIES and the provincial price indices from the National Statistics Office (NSO). These data sets provide information on seven food items: cereals, fruit, meat, dairy and eggs, fish, beverage, and a “catch-all” food commodity called ‘other foods’. The data set also includes information on non-food expenditures. These food items constitute about 79 to 87 percent to the total food expenditures of households. In the analysis the characteristics of household heads include age, education, age composition of household members, and regional locations.

The model was estimated using the method of seemingly unrelated regression. In terms of household characteristics, the results of the exercise indicate that households with children under 6 years of age tend to have high increase in the share of dairy and eggs. In the case of education of household head, positive and significant coefficients are observed for meat, dairy and eggs, and negative for fish, which seems plausible. Also, meat, dairy and eggs consumption is generally higher in the NCR than in other regions, which is also plausible.

In terms of the uncompensated price and income elasticities, the results indicate that the own-price elasticities are negative. Meat is price elastic for all income quintiles. Also, the responsiveness of the demand for meat to price changes is higher for lower income groups. Demand for dairy and eggs are price elastic for the second, third and fourth quintiles. Fish, on the other hand, is price elastic for first

quintile only. The price substitutability of the alternative sources of protein, namely meat and fish is also clear from the results, except for the first quintile.

Cereals are income inelastic for all income groups. For the second and the third income quintiles, fish and 'other foods' are income inelastic commodities. In the fourth income quintile, fruits are income inelastic, in addition to fish, 'other foods' and cereals. For the highest income quintile, all food items are income inelastic.

Across household strata, price elasticities are observed relatively higher for lower income groups than for higher income groups. Income/expenditure elasticities are also higher for lower income groups than for higher income groups, particularly for more expensive food items, which are likely to be luxury food items by lower income groups.

In another paper of Orbeta and Alba (1999), they estimated a model of school attendance for children who do not belong to the working group population, with ages ranging between 7 to 14 years old. A probit model was specified and estimated with explanatory variables that capture household characteristics such as sex, age, and educational attainment of both the child and the household head. Regional and urban residence variables used to proxy for location-specific characteristics include the structure of relative prices. Consumption spending net of outlays for schooling was calculated as the difference between per capita household income and household education expenditure per students. Household income per capita is defined as household divided by the number of household members and deflated by 1988 prices using the provincial consumer price index. On the other hand, household education expenditure per student is defined as the municipal average of household expenditure on education divided by the number of children attending school and deflated by 1988 prices using the provincial consumer price index. The quality of education is measured by the provincial student-teacher ratio, defined as the projected 1991 school-aged population (between 7 and 24 years old) of the province divided by the number of teachers in the area.

The results of the exercise indicate that the probability that a child between 7 and 14 years old would opt for an additional year of schooling is influenced by his/her sex, age, educational attainment, age and educational attainment of the household head, region of residence, and the provincial student-teacher ratio. In particular, a male child is observed to have a lower likelihood of attending school than a female child throughout most of the age interval considered. Age exerts a mild effect on the probability of dropping out of school at younger ages, but this effect increases at an increasing rate from about 11 years up to 14 years. These measured effects of age and sex capture the urgency in poor families to put the children to work. This effects intensify as the child gets older. Furthermore, the higher propensity of males to drop out may be due to the work assigned to male children, which includes among others, helping out during the planting and harvesting months which conflict with school calendar, whereas the work assigned to female children, which are largely home chores, may be not in conflict with time schedule in school.

In the case of household level determinants, children who live in households headed by older persons are found to have lower probability of attending one more year of school. Perhaps these household heads tend to put lower value on education.

Furthermore, the marginal effect of the educational attainment of the household heads on the likelihood of a child's attending school is a declining function such that children whose household heads have at least attended college are not more likely to spend an additional year in school compared to children whose household heads have at most attended high school. A possible reason for this is that a college-educated household head that ends up being in the bottom group of households may assign lower value to schooling than an otherwise similar high-school educated head.

The variable on consumption expenditures net of educational costs was also observed to be significant determinant of school attendance. For the community level variables, the provincial student-teacher ratio is observed to have a strong negative effect, which suggests that congestion in schools or education of poor quality does increase the probability of a child's dropping out of school.

Household Outcome Analysis of Tariff Reform. In an effort to bring down the effects of major adjustment policies to the household level effects, Orbeta and Alba (1998 and 1999) utilized their microeconometric results discussed above to analyze the impact of tariff reform on nutritional status of households and the demand for outpatient care. In analyzing the effects on the nutritional status of households, a linking matrix containing parameters derived from a separate partial equilibrium model for food was devised. In particular, a reduced-form equation of the demand for each of the food items considered was formulated. The equation specifies changes in the demand for food as functions of changes in commodity prices and changes in household expenditure/income. The parameters of the equations are the estimated elasticities. That is,

$$\hat{q}_i = \sum_j \in_{ij} \hat{p}_j + \eta_i \hat{x}$$

Where $\in_{ij}$ is the uncompensated price elasticity, $\hat{p}_j$ is the percentage change in the price of the commodity item j, η_i is the expenditure elasticity, and $\hat{x}$ is the percentage change in expenditure. From the demand for food items, the effects on the nutritional status of household were quantified using the following relationship,

$$\hat{N} = \sum_i K_i \hat{q}_i$$

where K_i is the initial nutrient contribution of commodity i.

The authors brought down the analysis of the effects of tariff reform in 1988-92 of Cororaton (1996) using CGE analysis to the household nutritional effects. The CGE simulation generated results concerning price changes of the food items considered, as well as household income and expenditure. The price and expenditure changes generate the change in food demand, which in turn determine the nutritional effects.

The results indicate that the price of food items decline following the reduction in tariffs. As a result of this decline in prices, households increase their demand for most of the food items, except for the highest income quintile, where only

the demand for cereal, fish, and 'other food' increases. The tariff reform program also yielded a progressive increase in income.

When translated into nutritional effects, in particular calorie and protein availability in households, it was observed that the tariff reform program over these years was generally progressive in terms of macronutrient availability in households. The authors concluded that the traditional results of simulating CGE models could be further enriched by explicitly dealing with the impact of price and income/expenditure changes on household decisions.

Similar analysis was done by the authors to extend their microeconometric results to the demand for health of households using a linkage matrix consisting of estimates of health demand elasticities. Translating the same CGE results on tariff reform, the authors found that households in lower income quintiles will use less hospital outpatient and independent private clinics, and will depend more on home care and public and charity clinics. Only those households in the highest income quintile are expected to increase the use of hospital outpatient and independent private clinics, despite the increase in prices. It would appear that the progressive income effect of tariff reform program is insufficient to counteract the expected price increase of health care in hospital outpatient and independent private clinics.

Applying the same methodology, the microeconometric results on school attendance, the CGE results on tariff reform, Orbeta (2000) showed that the simulated impact of the reform was a decline in the proportion of children ageing between 7 and 14 years old and who are attending school, and an increase in the proportion of the same category of children in the labor force. Moreover, the proportion of working students increased and the proportion of idle children fell. Also, the reform resulted in a decline in the proportion of pure students.

Globalization and Wage Inequality. Using an econometric-based study, Lanzona (2001) attempted to investigate the effect of globalization on wage inequality between skilled and unskilled labor in the Philippines. This is an important issue in relation not only to income distribution, but also to poverty because as discussed earlier the incidence of poverty is very high in households headed by someone with low education.

Insights from theory would indicate that a country would export goods that utilize its more abundant resources, and would import goods that use its scarce resources. Opening up the economy to trade increases exports, thereby improves the demand for its abundant resources. It also increases imports, thereby reduces the demand for scarce resources. These market forces in turn will lead to an increase in the price of the abundant resources and to a decline in the price scarce resources. Therefore, if applied to a developing country where the supply of unskilled labor is abundant relative to skilled labor, the theory will predict that wages of unskilled workers will increase relative to the wages of skilled labor. If initially the gap between these wages is large in favor of skilled labor, trade will therefore narrow this gap. This is the prediction of the Hechsher-Ohlin theory of trade.

However, for a middle-income developing countries like the Philippines where some skilled labor exists in selected relatively advanced industries alongside with

unskilled labor in less advanced sectors, the prediction of the theory on wages is less certain. According to the Stopler-Samuelson theory factor prices are dependent on the effect of trade on product demand and product prices. Wage inequality between skilled and unskilled labor may increase if the product prices of goods produced in less advanced sectors increase relative to the imported goods. Therefore, to make these sectors competitive, their prices may have to drop, which in turn results in lower wages, thereby increasing the wage gap between the skilled and unskilled labor.

Lanzona (2001) investigated the prediction of these theories using a detailed dataset on the manufacturing sector, which consists of both advanced and less advanced sectors. Following the original framework of Leamer (1996), he found that while all factor returns show improvement over the period 1989-95, unskilled labor inputs are found to have lower returns relative to other inputs. Therefore, relative to other inputs, unskilled labor earns significantly lower returns. In particular, the process of globalization is expected to bring about some wage inequality because in terms of returns, owners of capital get the highest rate, followed by skilled labor, and then owners of intermediate inputs.

The economy's export sector is significantly dominated by manufactured exports, in particular by export of semi-conductor. To date, it captures more than 60 percent of total exports. This export is highly dependent on capital, skilled labor, and intermediate inputs. In contrast, the share of agriculture-based manufactured exports is almost nil. This sector is shown to have higher value-added contribution from unskilled labor. Thus, to address the issue of widening wage inequality between skilled and unskilled labor, the development of agriculture-based manufactured exports is crucial.

In sum, there are certainly enough analytical resources available in the Philippines that can be utilized to link and translate the effects of macroeconomic adjustment policies to the household level effects to be able to assess and to draw policy insights for both income distribution and poverty, which are the two most critical problems of the country. Certainly, there is enough human capital available locally from various government and private research institutions and leading public and private universities who can continue to carry out further this analytical work[4]. However, the problems of income distribution and poverty go beyond these modeling and simulation exercises. To a great extent, these problems depend upon the policy focus of the government, its poverty programs, and institutional environment and arrangement.

6. Government Poverty Programs

Reyes (2002) documented the various government programs of the past administrations and observed that there were major shifts in policy orientation on poverty. Economic growth was the primary consideration in the 1950s. It was generally believed then that through the trickle down effects, the problems of poverty

[4]To cite a few the following institutions carry out extensive research on distributional and poverty issues: the Philippine Institute for Development Studies, the Angelo King Institute, the Ateneo Center for Economic Research and Development, and the economics department of various state and private universities such as the University of the Philippines in Diliman and Los Banos Campuses, Ateneo de Manila University, De Lasalle University, and the University of Asia and the Pacific.

could eventually be addressed. Although there were conscious efforts in the 1970s and 1980s to direct the attention of the government to issues concerning poverty reduction and income inequality, the turbulent years of the 1980s forced the administration to focus mainly on economic stabilization and adjustment issues. This hindered some of the programs on poverty alleviation. However, at present there is a growing concern for a more comprehensive approach to poverty reduction through rapid and sustained economic growth along with targeted poverty intervention programs aimed at the very poor, the vulnerable and the marginalized group of people.

Marcos Administration. This administration was in power from 1964 to February 1986. In the early part of the administration, poverty reduction was not the top priority. In fact, there were no specific poverty reduction strategies included in the various Philippine Development Plans formulated during the period. The focus was on economic growth, stability, unemployment, and income distribution through self-sufficiency in food, self-reliance in energy, price stability, development of natural resources, export development, human settlements, education and manpower development, agrarian reform, etc.

Aquino Administration. This administration was in power from the early 1986 to the middle of 1992. This administration took a hard look at the poverty problem by putting explicitly poverty alleviation as one of the major challenges and goals in the development plan. During this administration the government for the first time set poverty reduction targets from 59 percent in 1985 to 45.3 percent in 1992. The rural area where poverty is widespread, poverty incidence was targeted to decline from 63 percent in 1995 to 48 percent in 1992. An employment-oriented, rural-based development strategy was adopted to attain these targets. In particular, the government launched the Community Employment and Development Program aimed at generating additional one millions jobs through the construction of small-scale, labor-intensive infrastructure projects during the 18-month period beginning July 1986. To further uplift rural poverty, the government also enhanced the provision of social services delivery, pursued the agrarian reform, and decentralization.

Ramos Administration. This administration was in power from mid-1992 to the mid-1997. The government targeted poverty incidence to decline from 39.2 percent in 1991 to 30 percent in 1998. The administration launched the Social Reform Agenda in 1994. The flagship program under this is focused on the welfare of small farmers and aimed to empower the farmers, farm workers and landless rural workers by securing ownership or access to agriculture lands. Specifically, there were livelihood assistance programs that involved capital assistance, capability building, technical assistance, support services aimed at enhancing the capability of community-based credit associations that provide socialized credit schemes for income generating projects. There were also provision of social services to needy heads, disadvantaged women, out-of-school youth, and persons with disabilities.

Estrada Administration. This administration was in power from mid-1997 to early 2001. It targeted a drop in poverty incidence from 32 percent in 1997 to 25-28 percent in 2004 through policies that promote community and center-based, gender-sensitive social welfare interventions for the poor, the vulnerable, and the disadvantaged, including children, youth, women with disabilities, indigenous people,

informal workers, victims of disasters and human right violations, elderly, dysfunctional families, and depressed communities. There were also provisions of an integrated delivery of social services to address the minimum basic needs of poor rural municipalities as well as poor urban communities. However, the administration was cut short because of political scandal.

Arroyo Administration. This administration took office starting in the early 2001. The administration retained the previous target of 28 percent poverty incidence in 2004. The administration adopted programs that improve the delivery services for the poorest municipalities and provinces, assisted the local government units in local poverty action programs that assess the poverty situation in their respective localities, pursued programs that improve efficiency and effectiveness of the use of public funds in targeting the poorest groups, invited the private sector to actively contribute in the provision of services and other assistance in depressed areas. To complement the regular anti-poverty programs, the administration envisions specific programs to: (a) improve access of low-income workers in the informal sector to social security, (b) operationalize a provident fund scheme for overseas contract workers that will ensure their protection upon retirement, disability, loss of job, etc., (c) strengthen community participation in implementing a national health insurance programs that address health and nutrition risks of the poor.

Upon conducting a comprehensive review of the various poverty programs of the different administration, Reyes (2002) has observed that majority of these programs have short lifespan. Thus, it is difficult to realize fully the impact of the programs. There is lack of continuity. In fact, in a number of cases even before the programs are fully implemented, they are scrapped and replaced with new ones, only to suffer the same fate a few years hence. The lack of continuity is largely due to the gaps in institutional arrangements, particular from formulation of plans to implementation of specific poverty reduction programs.

7. Institutional Environment and Arrangements

NEDA is the agency that is responsible for formulating and coordinating the integrated social and economics policies. NEDA is composed of a Board that is headed by a Chairman, which is the President of the Philippines. There is also a NEDA Secretariat, which is needed by the Socio-Economic Planning Cabinet Secretary. Under the NEDA Secretariat is a division called the National Policy and Planning Staff (NPPS), which incidentally is the major user of macroeconometric and other economy-wide models existing in the Philippines for planning purposes. The NPPS conducts policy assessments and generates macroeconomic forecasts of key variables. It also translates these analyses to household level effects in terms of poverty and income distribution. The results of these analyses are discussed with various groups in the country through a series of public consultations. After which they are used in the formulation of the economy's medium-term development plans.

While NEDA comes out regularly with analysis and formulates the results in the development plan, another committee or commission takes the responsibility of the implementation of the specific poverty alleviation programs of the different administration. This latter committee or commission, however, is not a regular one similar to NEDA, but created through various Executive Orders and Republic Acts of

the President. Often, these were created for political ends. In fact, since the start of administration that took a primary focus on poverty reduction, a number of such institutions had been created. In fact, they come in and go. For example, in April 10, 1986 the Aquino created the Presidential Arm on Urban poor Affairs. A few months after, it was changed to Presidential Committee for the Urban Poor, and later to Presidential Council for the Urban Poor. Among the main functions of this were to coordinate the speedy implementation of government policies and programs for the urban poor, and to set up a consultative mechanism that will provide a continuing dialogue between the government and the urban poor.

In 199s, the Presidential Council for Countryside Development was created to address socio-economic problems of various regions, provinces and municipalities in the country that have been lagging behind. In the same year, the Presidential Commission to Fight Poverty was established to administer all government activities on poverty alleviation, and fast implementation of programs and projects.

In 1994 the Social Reform Council was established to serve as the policy-making body of the Social Reform Agenda of the Ramos administration. However, except for the President Commission for the Urban Poor, all of the previous committees and councils were replaced by National Anti-Poverty Commission (NAPC) during the Ramos administration. NAPC is chaired by the President of the Philippines. There is a NAPC Secretariat, whose head is appointed by the President. NAPC also has a number of vice-chairpersons. The primary functions of the Commission include are to: (a) coordinate with different national and local government agencies and private sector in the implementation of all social reform and poverty alleviation programs, (b) recommend policies and other measures to ensure the responsive implementation of the commitments under the Social Reform Agenda, (c) ensure proper representation and active participation of key sectors, (d) oversee and monitor the various poverty-related programs.

Social Reform Agenda is the rationale for the existence of NAPC. However, while NAPC was retained, the Social Reform Agenda was dropped by the Estrada administration and replaced it with another program called *Lingap sa Mahihirap* program. At present, in the Arroyo administration, the NAPC coordinates the poverty reduction programs, while the NEDA takes charge of all economic and social policies and programs. The President Commission for the Urban Poor continues to perform its mandate of coordinating policies and programs for the urban poor.

Thus, because of these constant changes in the administration of poverty-related programs there are no coherent and long lasting measures that address poverty problems. There is no continuity. Programs last only as long as the originators of the program. Thus, the challenge is to put in place poverty reduction program that will outlast any administration.

8. Some Assessments

Although overall actual poverty incidence declined from 49.2 percent in 1985 to 36.9 percent in 1997, but increased slightly to 39.5 percent in 2000, the performance of the various programs that target the poor is very is generally unsatisfactory. This is largely because the various targeting schemes have failed to

reach out adequately to the intended beneficiaries. Tables 12 and 13 show indicators of access to selected government programs. In the case of scholarship at the tertiary level in 1998, only 7.8 percent of the beneficiaries belong to the poorest quintile. The percent share of the richest quintile is 36.9 percent. Similarly, in the case of housing and financing, the poorest quintile has a share of 8.9 percent, while the richer quintile has 44.9 percent share. Similar pattern is observed in 1999 with the poorest quintile getting a small share of the program, while the rich quintile benefits the most.

9. Insights

The past three decades were very unstable for the Philippines both politically and economically. While it was able to shift from being under a military rule in the 1970s back to a democratic country in the mid-1980s, it remains generally politically unstable because the political institutions are too weak to withstand the political infighting among interest groups. Economically, it is fragile as manifested by the chronic macroeconomic imbalances. In fact, these chronic imbalances undermined the economic growth process of the country. The past decades saw a boom-bust growth within a cycle of 6 to 7 years. Real per capita GDP dropped in the mid-1980s. The drop was too steep that it only recovered back to historical level only recently, in 2003. The rate of inflation and unemployment were also high.

To address the weak economic fundaments, the government embarked on a series of stabilization measures to control inflationary pressures and economic uncertainties, and a number of macroeconomic structural adjustments policies to improve its production efficiency and competitiveness. However, while these adjustment policies are necessary to address the imbalances so that the economy can achieve a sustainable growth for an extended period, their effects at the household level are not very clear and straightforward. The effects would depend upon the size of the adjustments, the structure of the economy in terms of production, consumption, markets and prices, and the structure of household endowments. In particular, a favorable impact of the adjustment policies on poverty and distribution may not always be guaranteed because there are positive as well as negative effects, and one cannot know for sure the magnitude of each of these effects across production sectors and households.

Understanding these effects would require the use of economic models that are estimated and calibrated to Philippine data for policy simulations. Fortunately, a number of such tools are available. In fact, policy analysts both in the private and public institutions employ such tools to analyze distributional and poverty issues. The planning agency of the government for one employs these tools to come up with policy framework on poverty issues and forecast for the Philippine development plan.

There is a wide range of economic models available in the Philippines. There are macroeconometric models with income distribution bloc, CGE-poverty microsimulation models, microeconometric household models, and econometric-based models of key economic variables that relate to distribution and poverty issues. The paper reviews some of these models and finds that indeed the analysis of adjustment policies can be brought down to the household level to enrich the analysis of the distribution and poverty effects. Also, there is enough human capital available

in various the private and public research institutions, government agencies, and private and state universities that can continue to carry on this analytical work.

However, while economic models and policy simulation exercises can indeed contribute to the understanding of poverty and distributional effects of adjustment policies, there are other factors that affect poverty in the Philippines. Specific poverty reduction programs of the government that target the poor and institutional arrangements that facilitate the implementation of such programs are also key to addressing the problem of poverty and distribution. Unfortunately, these factors are very weak to impact favorably on poverty and distributional problems. In fact, there are no coherent and continuing poverty alleviation programs. Poverty programs last only as long as the originators of the program. Poverty alleviation action plans tend to be coterminous with the administration that developed it. In a number of cases, programs are scrapped even before they are implemented. Incumbent administration scraps old programs and specifies new ones that may not be consistent with the previous ones. Furthermore, institutional arrangements are also very weak to carry out effectively such programs because there is no regular government agency or commission that coordinates these programs. Different administrations scrap and create new poverty commission as they come in and go. In other words, the whole exercise of poverty alleviation is a political one. This is why the performance of poverty targeting is very poor. Thus, the challenge is to put in place poverty reduction program that will outlast any administration.

While the use of economic models and the exercise of policy simulations help understand the links between adjustment policies and household effects, the effectiveness of poverty reduction programs in being able to target and reach out to the poor depends upon the targeting tools that can help sort out the poor from the non-poor. However, poverty programs are not well targeted in case of the Philippines (Reyes, 2002). This is largely due to the fact that the designs of targeted programs are not well implemented because of the lack of adequate information and data system on the poor. Official poverty statistics coming from the National Statistics Office (NSO) are available only at the provincial level, not at the municipal and community level. To address this data gap, an IDRC funded project through the MIMAP pilot tested a community-based monitoring system (CBMS) in one of the provinces in the country where the incidence of poverty is high. The pilot testing of CBMS was carried out with the help of the provincial government in the area. CBMS collects data on basic minimum needs. The idea is to gather this set of information regularly and to institutionalize this system across all provinces because it will provide national agencies information needed for identifying priority areas and allocating resources and the local government units and poverty program implementers for identifying the beneficiaries. Regular CBMS data can also be used to monitor poverty reduction programs.

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Table 1: Philippine Economy's Growth Performance

	Real GDP Growth, %	Inflation Rate, %	NG* Budget Balance/GDP,%	Current Account Balance/GDP, %	Government Debt/GDP,%			GIR** Import Coverage Ratio, months	Change in Nominal Peso/ US $, %
					Total	Domestic	Foreign		
1970	3.8								
71	5.4	17.1							
72	5.4	16.6							
73	8.8	16.2		5.3				7.8	
74	3.6	34.5		-1.3				5.7	0.6
75	5.6	6.9	-1.3	-6.0				4.7	6.7
76	8.8	9.7	-1.8	-6.1				5.4	2.7
77	5.6	9.9	-2.0	-3.8				4.7	-0.5
78	5.2	7.1	-1.3	-4.9				4.8	-0.5
79	5.6	16.4	-0.2	-5.4				4.7	0.2
80	5.1	17.3	-1.3	-5.9				4.9	1.8
81	3.4	17.8	-4.3	-5.8				3.9	5.2
82	3.6	8.6	-4.5	-8.6				2.7	8.1
83	1.9	5.3	-2.0	-8.3	51.7	16.6	35.2	1.4	30.2
84	-7.3	47.1	-1.9	-3.6	54.7	16.0	38.7	1.8	50.0
85	-7.3	23.4	-1.9	-0.3	60.8	20.3	40.5	2.6	12.2
86	3.4	-0.4	-5.1	3.2	69.3	23.7	45.6	6.0	8.8
87	4.3	3.0	-2.4	-1.3	71.1	23.6	47.5	3.6	0.9
88	6.8	8.9	-2.9	-1.0	68.4	25.9	42.5	3.1	2.5
89	6.2	12.2	-2.1	-3.4	63.8	25.6	38.3	2.7	3.1
90	3.0	14.2	-3.5	-5.8	62.5	23.6	38.9	2.0	11.9
91	-0.6	18.7	-2.1	-1.9	61.6	27.4	34.1	4.5	14.2
92	0.3	8.9	-1.2	-1.6	72.2	37.2	35.0	4.4	-7.7
93	2.1	7.6	-1.5	-5.5	86.0	46.3	39.8	4.0	5.8
94	4.4	9.0	1.0	-4.6	72.5	39.6	32.9	4.0	-2.6
95	4.8	8.2	0.6	-4.4	69.6	38.0	31.5	3.5	-2.7
96	5.8	9.1	0.3	-4.8	61.3	34.5	26.9	4.4	2.0
97	5.2	5.9	0.1	-5.3	67.1	31.3	35.8	2.9	12.4
98	-0.5	9.7	-1.9	2.4	67.2	32.1	35.1	4.4	38.8
99	3.4	6.7	-3.8	9.7	72.0	33.1	38.8	6.2	-4.4
2000	6.0	4.4	-4.1	11.3	80.2	32.7	47.5	5.9	13.1
01	3.0	6.1	-4.0	6.4	78.4	34.6	43.8	6.6	15.4
02	4.4	3.1	-5.3	6.8	84.7	37.1	47.6	5.8	1.2
03	4.5	3.1	-4.6	4.2				5.6	5.0

* NG is National Government

** Gross International Reserves; coverage ratio is defined as GIR/average monthly merchandise imports

Source: Selected Philippine Indicators, Bangko Sentral ng Pilipinas

Table 2: Tariff Rates

	Average Nominal Tariff Rate			Average Implicit Tariff Rate		
	Overall	Agriculture	Manufacturing	Overall	Agriculture	Manufacturing
1990				26.14	25.5	28.5
1991	16.38	19.63	16.5	25.73	25.6	28.3
1992	16.12	21.06	15.9	30.56	25.4	34.8
1993	15.48	23.16	15.0	27.47	25.3	30.6
1994	12.37	22.94	11.5	25.60	24.6	28.3
1995	10.66	19.98	9.8	20.86	24.5	21.8
1996	10.81	28.45	6.8	23.57	27.5	25.7
1997	9.05	20.29	8.0	21.51	25.3	23.3
1998	7.57	23.83	5.7	18.99	24.5	20.4
1999	6.85	17.11	5.8	17.29	23.2	18.3
2000	4.44	13.11	3.4	16.77	22.6	17.7
2001	4.25	11.00	3.3			
2002	3.56	10.26	2.9			
2003	3.60	10.57	2.9			

Source: Tariff Commission

Table 3 : Philippine Poverty

			Poverty Indices						Change (%) in Poverty Indices						
			(A)	(B)	(C)	(D)	(E)	(F)	(G)	(I)	(J)	(K)	(L)	(M)	(O)
		Index	1985	1988	1991	1994	1997	2000	1988-85	1991-88	1994-91	1997-94	2000-97	2000-85	1997-85
	Phil.	Headcount	49.2	45.4	45.2	40.6	36.9	39.5	-8	0	-10	-9	7	-20	-25
		Gap	17.0	15.1	15.4	13.5	12.2	13.2	-11	2	-12	-10	8	-22	-28
		Severity	7.9	6.7	7.0	6.1	5.4	5.9	-15	5	-13	-11	9	-25	-31
	NCR	Headcount	27.1	25.1	16.6	10.4	8.5	11.5	-8	-34	-37	-18	35	-58	-69
		Gap	7.0	6.7	3.8	2.0	1.7	2.5	-4	-43	-47	-17	51	-64	-76
		Severity	2.7	2.6	1.3	0.6	0.5	0.8	-2	-50	-54	-14	62	-69	-81
	Urban	Headcount	43.9	39.4	42.7	34.7	27.1	29.7	-10	8	-19	-22	9	-32	-38
		Gap	15.1	12.8	14.9	11.4	8.3	8.9	-15	16	-23	-28	8	-41	-45
		Severity	7.0	5.6	6.9	5.2	3.5	3.8	-20	24	-26	-32	8	-46	-50
	Rural	Headcount	56.4	52.3	55.0	53.1	50.7	54.0	-7	5	-3	-5	6	-4	-10
		Gap	20.1	17.8	19.0	18.2	17.6	19.2	-11	7	-4	-3	9	-4	-12
		Severity	9.4	8.0	8.7	8.3	8.0	8.8	-15	9	-5	-3	10	-7	-15
National Capital Region	Fem-low	Headcount	36.3	34.0	21.6	10.7	12.2	13.4	-6	-37	-50	14	9	-63	-66
		Gap	8.6	11.3	6.2	2.4	2.6	2.9	32	-45	-62	7	14	-66	-70
		Severity	3.3	5.2	2.6	0.8	1.0	1.0	58	-49	-69	21	-1	-70	-70
	Fem-high	Headcount	10.3	6.3	4.5	2.8	2.5	1.6	-39	-29	-38	-9	-36	-84	-76
		Gap	2.6	1.9	0.7	0.4	0.4	0.2	-28	-62	-48	-3	-58	-94	-86
		Severity	0.9	0.8	0.2	0.1	0.1	0.0	-13	-73	-52	18	-72	-96	-87
	Male-low	Headcount	43.6	42.2	27.7	18.9	16.8	14.6	-3	-34	-32	-11	-13	-67	-61
		Gap	12.3	10.8	6.8	3.8	3.7	3.2	-13	-37	-45	-2	-13	-74	-70
		Severity	5.1	4.0	2.4	1.1	1.2	1.1	-23	-39	-53	2	-9	-79	-77
	Male-high	Headcount	18.3	18.4	12.5	7.7	5.5	3.0	1	-32	-38	-29	-45	-84	-70
		Gap	4.1	4.8	2.5	1.4	0.9	0.7	17	-49	-43	-36	-27	-84	-78
		Severity	1.3	1.9	0.7	0.4	0.2	0.2	40	-60	-45	-41	-15	-85	-82
Urban	Fem-low	Headcount	40.2	37.8	37.5	31.5	25.7	24.3	-6	-1	-16	-18	-6	-40	-36
		Gap	13.8	11.9	12.5	9.9	7.4	6.9	-14	5	-21	-25	-6	-50	-46
		Severity	6.4	5.2	5.6	4.2	3.1	2.9	-19	8	-25	-26	-6	-54	-52
	Fem-high	Headcount	16.6	14.2	12.0	9.5	6.5	2.3	-14	-15	-21	-32	-64	-86	-61
		Gap	3.7	4.0	3.5	1.9	1.6	0.4	7	-12	-44	-18	-74	-89	-57
		Severity	1.3	1.6	1.5	0.7	0.6	0.1	20	-2	-55	-19	-83	-93	-57
	Male-low	Headcount	60.1	54.9	58.4	48.8	41.3	35.8	-9	6	-17	-15	-13	-40	-31
		Gap	22.2	19.0	21.5	17.0	13.3	10.9	-14	13	-21	-22	-18	-51	-40
		Severity	10.6	8.6	10.3	7.9	5.8	4.6	-19	19	-23	-27	-20	-56	-45
	Male-high	Headcount	27.0	24.2	25.2	19.6	15.1	5.4	-10	4	-22	-23	-64	-80	-44
		Gap	7.6	6.5	7.3	5.4	4.0	1.3	-15	13	-26	-27	-68	-83	-48
		Severity	3.1	2.5	3.1	2.2	1.5	0.4	-20	23	-29	-32	-71	-86	-52
Rural	Fem-low	Headcount	46.0	45.0	45.6	44.9	42.3	39.8	-2	1	-2	-6	-6	-13	-8
		Gap	15.1	14.7	14.3	15.1	13.9	13.2	-3	-3	5	-7	-6	-13	-8
		Severity	6.7	6.5	6.2	6.9	6.2	5.8	-3	-5	12	-10	-7	-14	-7
	Fem-high	Headcount	16.6	17.8	9.2	18.9	17.6	14.7	7	-48	104	-7	-16	-12	6
		Gap	4.1	4.6	2.5	5.8	5.3	4.8	12	-46	134	-9	-9	16	28
		Severity	1.5	1.8	1.0	2.4	2.3	1.8	19	-44	143	-5	-23	20	56
	Male-low	Headcount	63.4	59.4	61.6	60.6	58.5	57.9	-6	4	-2	-3	-1	-9	-8
		Gap	23.1	20.8	21.8	21.1	20.8	20.7	-10	5	-3	-1	0	-10	-10
		Severity	11.0	9.5	10.1	9.7	9.6	9.6	-14	7	-4	-1	-1	-13	-13
	Male-high	Headcount	30.0	28.4	35.5	31.6	30.9	14.5	-5	25	-11	-2	-53	-52	3
		Gap	8.8	7.7	10.9	9.7	9.3	4.1	-12	41	-11	-5	-56	-53	5
		Severity	3.6	3.0	4.8	4.1	3.8	1.7	-18	62	-16	-7	-56	-54	4

Source: 1985, 1988, 1991, 1994, 1997, 2000 Family Income and Expenditure Survey, National Statistics Office

where: low - zero to third year high school; high - high school graduate and up; fem - female; NCR - National Capital Region

Table 4 :Poverty Distribution

		1985	1988	1991	1994	1997	2000
All	NCR	7.7	7.6	5.1	3.5	3.3	4.1
	Urban	22.0	21.0	34.1	30.7	24.6	26.1
	Rural	70.2	71.4	60.7	65.7	72.1	69.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0
NCR	Female, low	0.9	0.8	0.5	0.3	0.3	0.7
	Female, high	0.2	0.2	0.1	0.1	0.1	0.0
	Male, low	3.9	3.6	2.4	1.7	1.7	3.2
	Male, high	2.7	3.1	2.1	1.4	1.2	0.2
Urban	Female, low	1.8	1.5	2.4	2.3	1.9	2.8
	Female, high	0.4	0.4	0.4	0.4	0.4	0.1
	Male, low	14.8	14.0	24.1	21.7	16.7	22.7
	Male, high	5.1	5.0	7.3	6.4	5.7	0.6
Rural	Female, low	4.4	4.3	3.7	4.6	4.4	5.3
	Female, high	0.3	0.4	0.2	0.4	0.5	0.1
	Male, low	59.8	59.9	50.0	53.4	58.0	63.5
	Male, high	5.7	6.8	6.9	7.3	9.2	0.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1985, 1988, 1991, 1994, 1997, 2000 Family Income and Expenditure Survey, National Statistics Office

Table 5 : Income Distribution

	1985	1988	1991	1994	1997	2000
Gini Coefficient	0.4525	0.4568	0.4803	0.4644	0.5068	0.5054
Top 20% /a/	52.1	51.8	53.9	52.0	55.5	54.8
Bottom 20% /a/	5.2	5.2	4.8	4.9	4.4	4.4

Source: 1985, 1988, 1991, 1994, 1997, 2000 Family Income and Expenditure Survey, National Statistics Office

/a/ share to total household income

Table 6: Decomposition of Poverty Incidence

Period	Total Change in Poverty Incidence	Growth Component	Redistribution Component	Residual
1985-91	-3.04	-6.09	2.56	0.50
1991-97	-7.74	-12.09	2.58	1.77
1997-2000	1.38	1.72	-0.47	0.13
1985-2000	-9.40	-16.46	4.66	2.40

Source: Reyes (2002)

Table 7: Household Income Effects of Some Adjustment Policies, % change from base

	Increase in Capital Expenditure			Exchange Rate Adjustment	
	1991	1992	1993	1992	1993
HH1	0.42	0.43	0.42	-0.13	0.08
HH2	0.46	0.47	0.46	-0.18	0.03
HH3	0.52	0.54	0.53	-0.25	-0.04
HH4	0.56	0.58	0.57	-0.30	-0.08
HH5	0.64	0.67	0.66	-0.40	-0.17
HH6	0.71	0.75	0.75	-0.49	-0.27
HH7	0.82	0.86	0.86	-0.62	-0.39
HH8	0.85	0.90	0.91	-0.68	-0.46
HH9	0.92	0.97	0.99	-0.76	-0.54
HH10	0.89	0.95	0.21	-0.73	-0.54
Change in Gini	0.17137	0.18964	0.20356	-0.22292	-0.23519

Source: Yap (1996)

Table 8 : Medium-Term Forecast of the Philippines

	Actual				Forecast						
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GNP growth (%)				5.6	5.2	5.5	6.1	6.2	6	6.1	6
GDP growth				4.7	4.9	5.3	6	6	6	6	6
Agriculture growth				3.8	3.7	3.9	4.2	4	4	4.2	4
Industry growth				3.8	4.6	5.2	6.3	6.5	6.5	6.4	6.4
Services growth				5.8	5.7	6	6.5	6.5	6.3	6.5	6.5
Unemployment rate (%):											
Scenario A /a/				11.38	11.95	12.29	12.26	12.23	12.19	12.16	12.12
Scenario B				11.38	11.95	12.29	11.72	11.14	10.56	9.97	9.38
Scenario C				11.38	11.69	11.78	10.95	10.11	9.25	8.40	7.53
Scenario D				11.38	11.69	11.78	11.49	11.20	10.91	10.62	10.33
Poverty incidence (%)	33.97	34.12	33.07	32.23	31.09	30.17	29.41	28.55	27.71	26.84	26.05

Source: National Economic and Development Authority-National Policy and Planning Staff

/a/'Scenario A GDP growth 6%, labor force growth 3.8 percent

Scenario B GDP growth 7%, labor force growth 3.8 percent

Scenario C GDP growth 7%, labor force growth 3.5 percent

Scenario D GDP growth 6%, labor force growth 3.5 percent

Table 9 : Changes in Poverty indices after the simulation,% (direct income tax)

Index	All	Tot_Fem	Fem_L	Fem_H	Tot_Mal	Mal_L	Mal_H
All Philippines							
pov_hdcnt	-4.3	-5.4	-4.7	-10.6	-4.2	-3.8	-6.4
pov_gap	-5.4	-6.1	-5.8	-10.0	-5.3	-4.9	-7.6
pov_sev	-6.0	-6.8	-6.6	-9.5	-5.9	-5.6	-8.1
National Capital Region (NCR)							
pov_hdcnt	-14.6	-16.4	-9.7	-32.8	-14.4	-13.5	-15.5
pov_gap	-16.8	-15.5	-14.7	-18.7	-17.0	-17.3	-16.6
pov_sev	-18.8	-16.1	-15.9	-16.3	-19.0	-19.8	-18.2
Urban, excluding NCR							
pov_hdcnt	-5.3	-6.3	-5.5	-10.6	-6.4	-4.8	-6.7
pov_gap	-6.4	-7.8	-7.1	-13.8	-5.8	-5.8	-8.5
pov_sev	-7.0	-8.8	-8.5	-12.3	-6.5	-6.5	-8.9
Rural							
pov_hdcnt	-3.3	-4.1	-4.0	-5.0	-3.2	-3.1	-4.3
pov_gap	-4.5	-5.0	-4.8	-6.6	-4.5	-4.3	-5.8
pov_sev	-5.3	-5.7	-5.5	-7.6	-5.3	-5.1	-6.7

Source: Cororaton and Cockburn (2004)

where: Tot_Fem is total female

Fem_L is female with low education

Fem_H is female with high education

Mal_H is male with high education

Mal_L is male with low education

Tot_Mal is total male

pov_hdcnt is headcount index

pov_gap is poverty gap

pov_sev is poverty severity

Table 10: Gini Coefficient, direct income tax

	Before (base)	After
Gini	0.46443	0.46658
(% change from base)		0.46%
Standard deviation of Gini	0.00288	0.00287

Source: Cororaton and Cockburn (2004)

Table 11: Effects on Household Income, Consumer Prices, and Poverty, % change

	Consumer	Poverty		
	Prices /a/	Headcount	Gap	Severity
Philippines	**-0.65**	**-0.08**	**0.04**	**0.08**
urb1	-0.73	0.11	0.46	0.53
urb2	-0.54	-1.54	-1.40	-1.56
urb3	-0.50	0.00	-1.51	-1.74
urb4	-0.64	-0.27	-0.27	-0.35
urb5	-0.52	-0.97	-1.18	-1.26
urb6	-0.42	0.00	-0.22	-0.25
rur1	-0.92	0.30	0.97	1.21
rur2	-0.76	-0.98	-0.63	-0.70
rur3	-0.66	-1.36	-1.24	-1.50
rur4	-0.88	0.15	0.16	0.20
rur5	-0.74	-0.55	-0.95	-1.22
rur6	-0.79	0.00	-0.23	-0.27
Change in Gini Coefficient	0.243			

Source: Cororaton (2004)

/a/ sectoral consumer prices weighted by household consumption weights

where:

urb1	worked for private household and private establishment; zero education up to third year high school
urb2	worked for private household and private establishment; high school graduate and up
urb3	worked for government/government corporation
urb4	self-employed without employee; zero education up to third year high school; including unemployed during 1994 survey.
urb5	self-employed without employee; high school graduate and up; including unemployed during 1994 survey.
urb6	employed in own family-operated farm or business; worked with pay in own family-operated farm or business; and worked without pay in own family-operated farm or business
rur1	worked for private household and private establishment; zero education up to third year high school
rur2	worked for private household and private establishment; high school graduate and up
rur3	worked for government/government corporation
rur4	self-employed without employee; zero education up to third year high school; including unemployed during 1994 survey.
rur5	self-employed without employee; high school graduate and up; including unemployed during 1994 survey.
rur6	employed in own family-operated farm or business; worked with pay in own family-operated farm or business; and worked without pay in own family-operated farm or business

Table 12 : Access to Selected Poverty-Related Programs, 1998 (by Quntile)

	Quintile					
Programs	**1**	**2**	**3**	**4**	**5**	**Total**
Tertiary Scholarship*	26,335	43,365	63,860	80,809	125,234	339,603
% distribution	7.8	12.8	18.8	23.8	36.9	100.0
Housing and Financing*	55,071	69,678	79,071	138,932	278,955	621,707
% distribution	8.9	11.2	12.7	22.3	44.9	100.0

* Number of beneficiaries

Source: 1998 Annual Poverty Indicator Survey (APIS), quoted from Reyes (2002)

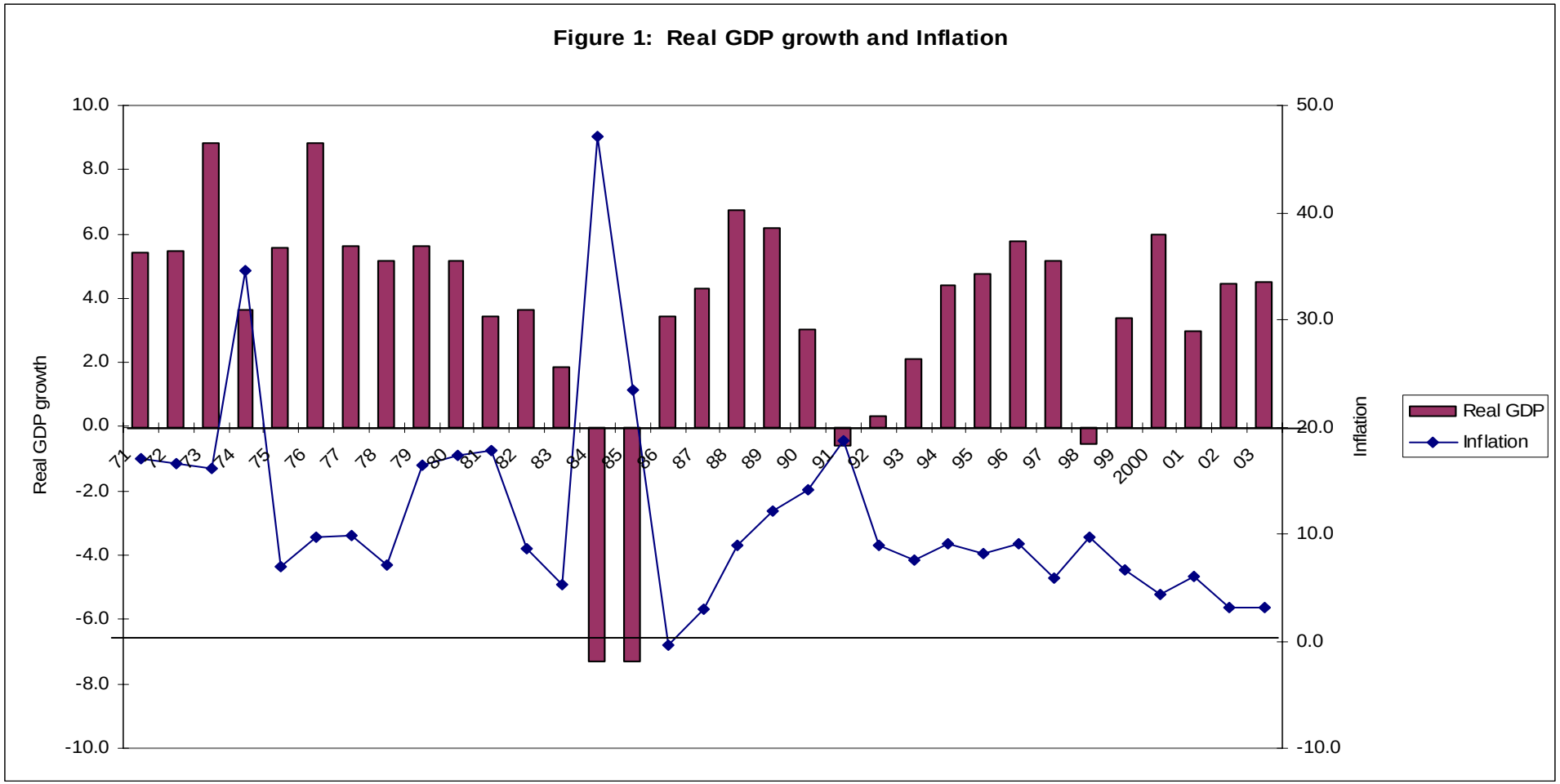
Table 13 : Access to Selected Poverty-Related Programs, 1999 (by Quntile)

Programs	Quintile 1	2	3	4	5	Total
Tertiary Scholarship*	5,281	23,901	47,229	74,701	108,592	259,704
% distribution	2.0	9.2	18.2	28.8	41.8	100.0
Government*	1,820	14,355	24,370	35,777	50,760	127,082
% distribution	1.4	11.3	19.2	28.2	39.9	100.0
Government*	3,462	9,546	22,859	38,923	57,832	132,622
% distribution	2.6	7.2	17.2	29.3	43.6	100.0
Housing and Financing*	45,438	68,352	80,771	118,352	289,580	602,493
% distribution	7.5	11.3	13.4	19.6	48.1	100.0

* Number of beneficiaries

Source: 1998 Annual Poverty Indicator Survey (APIS), quoted from Reyes (2002)

Figure 1: Real GDP growth and Inflation



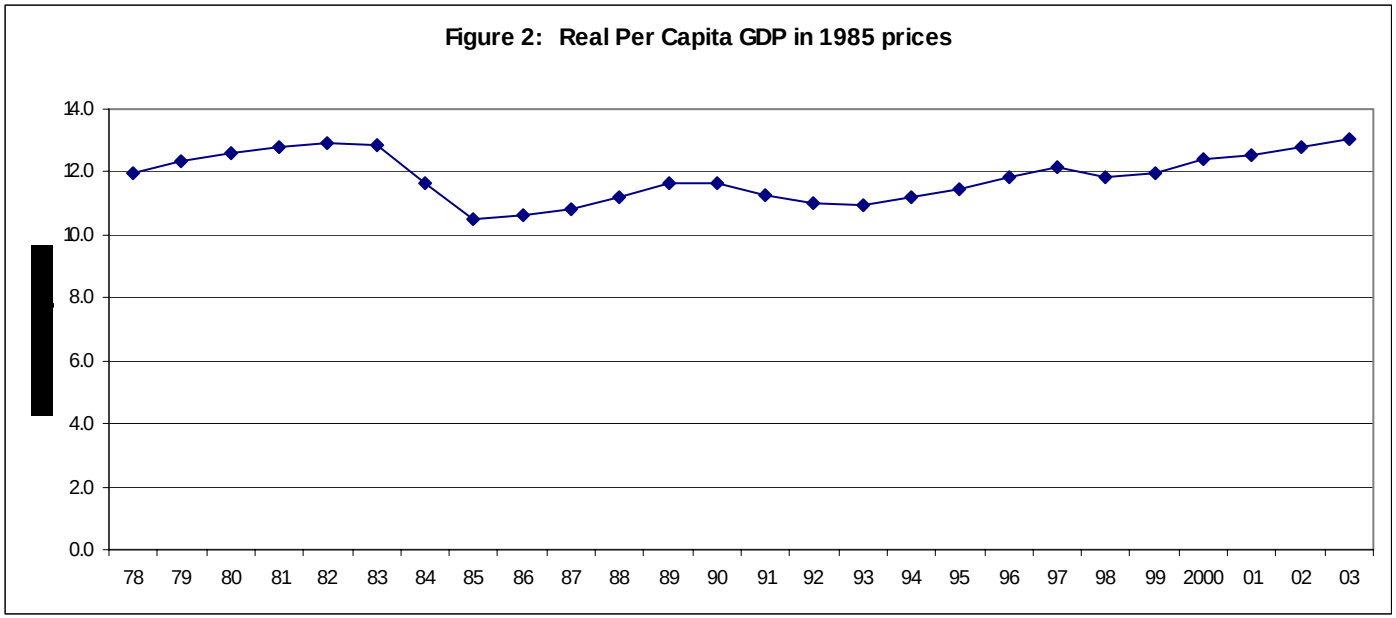


Figure 2: Real Per Capita GDP in 1985 prices
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 2000 01 02 03

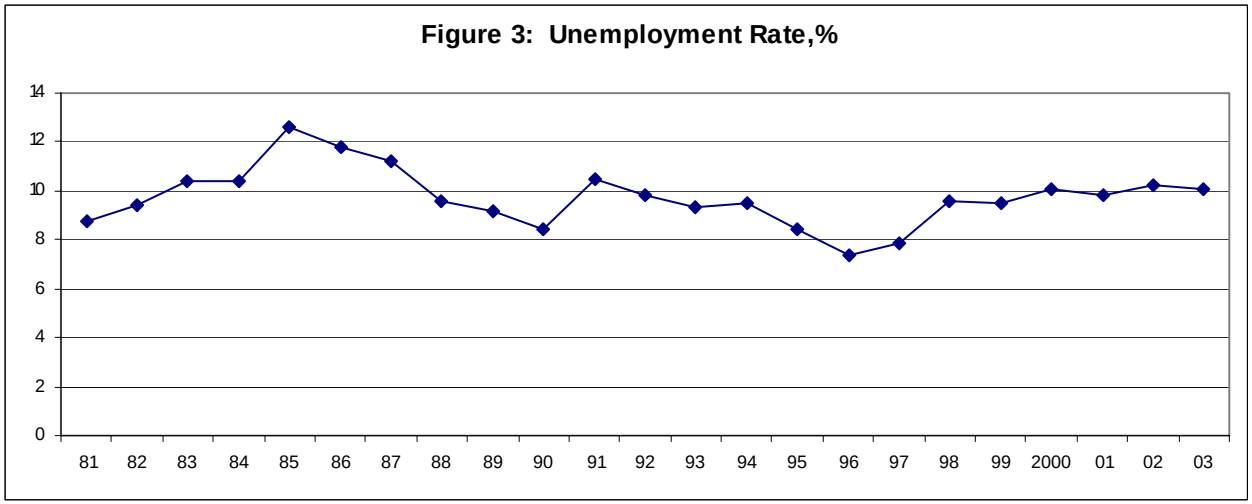


Figure 3: Unemployment Rate,%
14
12
10
8
6
4
2
0
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
2000
01
02
03